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BARBERRY ERADICATION IN NEBRASKA

Black stem rust of grain is caused by a fungus which bears the long scientific name of Puccinia graminis. This fungus is a minute, mold-like plant. It must live on other plants and for this reason it is called a parasite. The plant upon which it grows is called its host. Black stem rust has two hosts, the common barberry and grain or grasses. It lives for part of the year on the barberry and partly on grains and grasses.

Stem rust appears on the leaves of barberries in Nebraska in April and May. It spreads during the next two or three weeks from the infected barberries to grains and grasses near by. Stem rust epidemics may be produced in near-by grain fields, and the summer stage of stem rust may continue to spread throughout the summer if conditions are favorable.

Some barberries have been found spreading rust throughout each summer month. The complete life story of black stem rust is told in Farmers' Bulletin 1058.

Black stem rust has caused enormous losses of small grains. The average annual loss from stem rust in the United States from 1916 to 1924, inclusive, has been about 50,000,000 bushels of wheat alone. The total losses reported from 1915 to 1924, inclusive, for the 13 States in the barberry-eradication area were 486,589,000 bushels of all small grains. The total losses for Nebraska from 1915 to 1924, inclusive, were about 18,505,000 bushels of wheat, 3,922,000 bushels of oats, and 276,000 bushels of barley. These losses total 22,703,000 bushels of all grains in Nebraska alone.

A State law prohibiting the growing of common barberries in Nebraska became effective April 3, 1919. Nurserymen and property owners who have had common barberry bushes have cooperated so readily in destroying them that enforcement of the law has not been necessary.

Black stem rust can not infect any shrubs or bushes except certain species, varieties, and hybrids of barberries. Of these the common barberry is the principal one. All harmful barberries should be destroyed, however. A few kinds of barberries do not become infected with stem rust. The more widely spread of these is the Japanese barberry, which is harmless. The Japanese barberry should not be destroyed.

In the seven years from 1918 to 1924, inclusive, there have been found in Nebraska 94,273 common barberry bushes on 3,868 properties. In addition, there have been found 9,365 seedlings, and on the reinspection of bushes that were cut off or dug, about 15,490 sprouting bushes were found and destroyed.

Only through the cooperation of every citizen of Nebraska can every harmful barberry bush, seedling, and sprout remaining in the State be found and its complete eradication insured. Such cooperation is essential for the protection of the small-grain crops of the State and the Nation. Watch for common barberries! When you find them report the name and address of the property owner upon which they are found either to your county agricultural agent, the State College of Agriculture, Lincoln, Nebr., or to the Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.

